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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/564,301 | 02/22/2007 | Rudolf Reichert | WC/479 | 9685 |

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| EXAMINER | |
|---|---|
| MAYO III, WILLIAM H | |
| ART UNIT | PAPER NUMBER |
| 2831 | |

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|---|---|
| 05/12/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/564,301 | REICHERT ET AL. | |
| | Examiner | Art Unit | |
| | William H. Mayo III | 2831 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *17-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2007* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/10/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group I, claims 1-16 in the reply filed on April 23, 2009 is acknowledged.

2. Claims 17-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### *Priority*

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in present Application No. 10/564301, filed on February 22, 2007.

4. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 120. The PCT Application Number PCT/Ep04/07589, being filed on July 9, 2004.

### *Information Disclosure Statement*

5. The information disclosure statement filed January 10, 2006 has been submitted for consideration by the Office. It has been placed in the application file and the information referred to therein has been considered.

***Drawings***

6. The drawings are objected to because Figures 1-10 & 12-13 lack the proper cross-hatching which indicates the type of materials, which may be in an invention. Specifically, the cross hatching to indicate the conductor and insulative materials are improper. The applicant should refer to MPEP Section 608.02 for the proper cross-hatching of materials. Correction is required.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (Pat Num 4,707,671, herein referred to as Suzuki). Suzuki discloses a flat cable (Figs 1-12), which exhibits reduced crosstalk (Col 1, lines 5-8). Specifically, with

respect to claim 1, Suzuki discloses a flat cable (1) comprising at least two conductor planes (Fig 1) with a plurality of electrical conductors ($1a_1$-$1g_2$) running in a longitudinal direction of the cable (1), wherein the conductors ($1a_1$-$1g_2$) are kept at a defined distance from one another in a direction of at least one of the flat cable thickness and the flat cable width by a central insulating layer (2) of a predetermined thickness, wherein the conductors ($1a_1$-$1g_2$) are electrical insulated and positioned in relation to a respective outer side of the flat cable (1) by a respective outer insulating layer (upper and bottom 3), wherein the central insulating layer (2) has a greater hardness than the outer insulating layer (upper and bottom 3, i.e. insulating layer 2 is porous PTFE, wherein the outer insulating layer solid PTFE), thereby inherently increasing compressive force acting in the direction of the flat cable thickness which is exerted on the flat cable (1) by the electrical conductors ($1a_1$-$1g_2$), thereby inherently displacing the outer insulating layer (top and bottom 3) more readily than the central insulating layer (2). With respect to claim 2, Suzuki discloses that some of the conductors ($1a_1$-$1g_2$) may be round conductors (Col 4, lines 55-60, Figs 1-12). With respect to claim 3, Suzuki discloses that the some of the conductors ($1a_1$-$1g_2$) may be flat conductors (Col 4, lines 55-60). With respect to claim 4, Suzuki discloses that the some of the flat conductors (Fig 2) are formed as narrow conductors ($5a_1$, $5a_2$) and the rest are formed as wide flat conductors ($5a_3$, $5c_3$). With respect to claim 5, Suzuki discloses that the narrow conductors ($5a_1$, $5a_2$) from pairs of conductors (Col 4, lines 26-27) having two narrow conductors (Fig 1). With respect to claim 6, Suzuki discloses that each pair of conductors ($5a_1$, $5a_2$) comprising narrow conductors ($5a_1$, $5a_2$) is assigned a wide flat

conductor ($1a_3$) of another conductor plane (bottom 3), wherein the wide flat conductor ($1a_3$) each having a width and position that each of them extends widthwise over the entire width of the opposite pair of narrow conductors ($5a_1$, $5a_2$) of the outer conductor plane (top 3, Fig 1). With respect to claim 7, Suzuki discloses that the wide flat conductors ($1a_3$) are arranged in one conductor plane (bottom 3) and the narrow conductors ($5a_1$, $5a_2$) are arranged in the other conductor plane (top 3). With respect to claim 8, Suzuki discloses that the narrow conductors (6) forming conductor pairs (Fig 3) may be round conductors (Fig 3). With respect to claim 9, Suzuki discloses that the narrow conductors ($5a_1$, $5a_2$) are formed by flat conductors (Fig 1). With respect to claim 10, Suzuki discloses that the central and outer insulating layers (2 & top and bottom 3) are made of PTFE (Col 4, lines 48-54). With respect to claim 11, Suzuki discloses that the central insulating layer (2) is made of ePTFE (i.e. porous PTFE, Col 4, lines 48-54). With respect to claim 12, Suzuki discloses that the wide flat conductors ($1a_3$) may be mutually adjacent the direction of the flat cable width and adjacent groups of the flat conductors (Fig 2), wherein one of the flat wide conductors ($5a_3$, $5b_3$) are arranged alternatively in one conductor plane (bottom 3) and the outer conductor in another conductor plane (upper 3, Fig 2), thereby alternatively arranging with respectively narrow conductors ($5a_1$, $5a_2$) in both planes (Fig 2). With respect to claim 13, Suzuki discloses a method wherein one of the two mutually adjacent electrical conductors ($1a_1$-$1g_2$) forming a pair of signal conductors are capable of transmitting data pulses in a non-negated signal form and the other transmitting data pulses in a negated signal form (i.e. all of the claimed structure is taught in the prior art and therefore the

prior art is capable of performing the same functions). With respect to claims 14-15, Suzuki discloses that the conductor pairs ($1a_1$-$1g_2$) may be in the same or different planes (top and bottom 3, Col 5, lines 5-15). With respect to claim 16, Suzuki discloses the usage of a flat cable (1) wherein one of the two mutually adjacent electrical conductors ($1a_1$-$1g_2$) forming a pair of signal conductors are capable of transmitting data pulses in a non-negated signal form and the other transmitting data pulses in a negated signal form, wherein the wide flat conductor ($5a_3$, $5b_3$ ) are capable of being reference potential conductors associated with the pairs of signal conductors ($5a_1$, $5a_2$, i.e. all of the claimed structure is taught in the prior art and therefore the prior art is capable of performing the same functions).

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Suzuki (Pat Num 4,490,690), Assai et al (Pat Num 4,832,621), Look (Pat Num 4,578,529), Elliott et al (Pat Num 4,381,420), Fujii et al (Pat Num 5,003,126), Schreiber et al (Pat Num 4,845,311), Ainsworth et al (Pat Num 5,235,132), Mizutani et al (Pat Num 5,446,239), Suzuki et al (Pat Num 4,639,693), Coon (Pat Num 4,658,090), Kikuchi et al (Pat Num 4,748,293), Kabadi et al (Pat Num 4,798,918), Haldewan, Jr (Pat Num 3,586,757), Firtz et al (Pat Num 4,149,026), Kuo (Pat Num 4,219,928), and Suzuki (Pat Num 4,382,236), all of which disclose various flat cables.

***Communication***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245 or (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Mayo III/

William H. Mayo III
Primary Examiner

Art Unit 2831

WHM III
May 7, 2009